



## Research Article

**AGNIKARMA- A TRENCHANT TECHNIQUE FOR CATHOLICON OF KADARA W.S.R TO CORN****Gupta Sudesh<sup>1\*</sup>, Madhu Bala<sup>2</sup>, Thapa Anuradha<sup>2</sup>, Gupta Bhawana<sup>3</sup>**<sup>1</sup>Associate professor, <sup>2</sup>PG Scholars, PG Department of Shalyatantra, Jammu Institute of Ayurveda and Research, Nardni (Raipur), Jammu, India.<sup>3</sup>Medical officer, National Rural Health Mission, PHC-Siot, District-Rajouri, Jammu, India.**KEYWORDS:** *Kadara*, Corn, *Agnikarma*, *Panchloha shalakra*.**ABSTRACT**

*Kadara* has been described as one of the *Kshudra roga* in *Sushruta samhita*. It is characterized by hard *Granthi* type swelling. It amounts to great pain and discomfort when pressure is applied. Even though it is not fatal but makes patient suffer a lot of pain. Patient makes great effort to get rid from this. *Kadara* can be co-related to corn in modern science. But its management in modern science is not satisfactory. In modern science its treatment includes corn cap application and Surgical excision. Excision of corn is very painful procedure. In modern surgery the only form of treatment of corn that affords any reliable prospect of cure is excision. But the surgeries of corn have an unenviable reputation for subsequent chronic wound healing, more hospitalization etc. Generally is recommended that salicylic acid not to be used by people with diabetes, or when there is frail skin or poor circulation (because of concern about how the skin can heal). Sometime salicylic acid can harmful and allergic to skin moreover by these procedure reoccurrence is very common. So keeping these drawbacks of modern science management, *Agnikarma* mentioned in *Ayurveda* selected to give new parameter to management of *Kadara*. In this present study total 30 patients were selected randomly. They were treated by *Agnikarma procedure* with *Panchloha shalakra* in a Systematic manner for duration of 15 days with interval of 5 days in 3 sittings. An excision of *Kadara* is done by *Red Hot Panchloha shalakra*. Internally *Triphala guggulu* 2 tab for 5 days with lukewarm water after food was given. Patient was followed up to 60 days of the procedures to observe and note any reoccurrence. Dressing with *Jatyadi Ghrita* was done daily in OPD of *Shalya tantra* department. After completion of clinical trial highly significant result were found in parameter like pain, infection and healing period and no reoccurrence was observed by *Agnikarma* procedure. By these result it can concluded that *Agnikarma* is an effective remedy for *Kadara*.

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**INTRODUCTION**

*Kadara* is a disease in which there is hard swelling in soles and palms. Acharya Sushruta explained the disease *Kadara* in "*Kshudra roga*". "*Kshudra Roga*" is a disease having simple pathology but very difficult to be cured, *Kadara* is initially painless in condition but with its progress, it may become painful. It is said that repeated injuries & friction to the sole with thorns, stones etc, or by the *Doshas* becoming aggravated together with fat and blood, it give rise to a tumor, hard like bolt, in the middle or at the end of feet, of the size of a kola (jujube fruit), having pain and exudation; known as *kadara*<sup>1</sup>. *Kadara* may develop as the vitiation of *Vata* with *Kapha dosha*. *Vata* and *Kapha dosha* have been considered as the important factors for causation of *Shotha* (inflammation) and *Shoola* (pain)<sup>2</sup>. It is known by corn in modern medical science, on the basis of symptoms given by Acharya Sushruta<sup>3</sup> i.e. *Keelavat*

(lesion have a central core), *Kathin* (hard), *Granthi* (knotted), *Madhyo Nimna* (depressed in the central) or *Unnat* (elevated in the central), *Kolamatra* (seed of plum) in size, painful and sometimes with *Srava* (discharge). The disease corn is a localized hyperkeratosis of the skin<sup>4</sup>. It usually occurs at the site of pressure E.g. On the soles and toes, occurring due to defective foot wear, thorn prick, etc.<sup>5</sup> There is usually a horny induration of the cuticle with a hard Centre. Corn is initially painless but it may be painful particularly when it is rubbed. Corn has tendency to recur after excision. It has a deep central core which reaches to the deeper layers of dermis.<sup>6</sup> Modern science has provided some preventive measures such as soft shoes or soft pads at pressure point of the sole, application of salicylic acid on corn, use of central local application such as cornac or carnation cap and lastly excision of corn.<sup>7</sup> In

*Ayurveda* complete and effective remedy for the said disease is mentioned under *Shalya tantra*. In reference to *Chikitsa* of *Kadara* Acharaya Sushruta and Dalhana mentioned the seat of effected lesion should be excised and Agni Karma should be carried out with oil.<sup>8</sup> According to *Acharya Sushruta* when *Bheshaja Chikitsa*, *Kshar Chikitsa* and *Shastra Chikitsa* are unable to cure the disease only then *Agnikarma* can be used. As only *Agnikarma* therapy has a property to destroy the pathology in the deeper structure. Even modern science has also mentioned that central core of corn reaches in the deeper layers of dermis and hence *Agnikarma* is the only therapy which can destroy the hyperkeratosis of skin with the properties of *Ushna*, *Tiksha*, *Sukshma*, *Vyavai*, *Vikasi* and *Pachana Gunas* of *Agni* & *Tila Taila*.<sup>9</sup> But for further evaluation in Agni Karma we carried out *Pratisarana* and *Bindu* in combination, with the help of specially designed *Pancha Loha Shalaka* in oil medium<sup>10</sup>. This combined therapy seems to be more effective to provide instant relief.

## MATERIALS AND METHODS

### MATERIALS

Following materials and drugs are required for this study:

1. *Panch loh shalaka*
2. Gas stove, Gauze piece, Sponge holder.
3. Tab *Triphala guggulu* 500mg BD for 5days.
4. *Jatyadi ghrita* for LA for 15 days

### Pancha loha Shalaka

*Pancha loha Shalaka* was made by classical method told in *Ayurveda* and used in many types of diseases. *Pancha loha* includes: *Tamra*, *Loha*, *Yashada*, *Rajatha*, *Vanga* in 4:3:1:1:1 ratio. The *Shalaka* prepared by combination of these *Pancha loha* retains *Agni* for longer period. This facilitates proper *Agni karma* and desired effects are obtained. In the present study specially designed *Pancha Loha Shalaka* was used to perform *Agnikarma*. It takes 5minute to become red hot, Temperature attained at red hot was 200°C and temperature falls 10°C in every 5 seconds. Time taken to attain room temperature was 1 minute 40seconds. *Pancha Loha Shalaka* retains heat for a longer period, thus facilitating proper heat decapitation at the affected site, and proper administration of *Agnikarma*.

### Clinical Study

#### Source of Data

Patients attending OPD and IPD of postgraduate Department of *Shalya Tantra* of Jammu Institute of *Ayurveda* and Research, who were fit for the study as per inclusion criteria, were selected randomly.

#### Method of collection of data

#### Sample size: 30

#### Inclusion Criteria

1. Patient with clinical features of *Kadara*.
2. Patient of both the sexes of age group between 20-70 years.

#### Exclusion Criteria

1. Patient who are contraindicated for *Agnikarma*.

2. Patients with Uncontrolled Systemic disorders like diabetes.
3. Patients with infective conditions like HIV and Hbs Ag were excluded.
4. Pregnant women.

### Assessment criteria

Criteria of assessment were based on subjective and objective parameters. The gradation adopted for assessment is depicted in **Table 1**.

**Table 1:**

Criteria for pain (Based on Mc Gill pain index score)	
Grade	Description
0	No Pain
1	Mild Pain
2	Discomforting Pain
3	Distressing Pain
4	Horrible Pain
5	Excruciating Pain
Criteria for Sankramana (infection)	
Grade	Description
0	No infection
1	Mild infection
2	Moderate infection
3	Severe infection
Criteria for Ropana kala (Healing time)	
Grade	Description
1	6 Days
2	8 Days
3	10 Days
4	12 Days
5	14 Days

### Interventions

*Agnikarma* was performed by specially designed *Pancha loha shalaka*. *Pancha loha shalaka* was made red hot over *Agni* and was applied over the *Kadara* till *Samyak dagdha lakshanas* are obtained.

### Purvakarma

1. Confirmation of site of *Agnikarma* and marking the site of max. tenderness.
2. Proper positioning of the patient
3. Area covered with sterile drape.
4. Selected site is isolated and cleaned with *Triphala Kashaya*.
5. Heating the *Shalaka* till red hot.

### Pradhan Karma

After taking written informed consent, *Agnikarma* was done. The effected part was applied with *Triphala* decoction and wiped up with sterilized gauze piece. The red hot *Panchloha Shalaka* is then applied to corn. Firstly, *Agnikarma* on corn was done for *Pratisaran*

(flat type of cauterization) with the base of *Panchloha shalaka* and followed by *Bindu*. (dotted type of cauterization) with the tip of *Shalaka*. Every *Shalaka* is applied within area of corn for 30 sec. During entire procedure *Kumari svaras* (fresh pulp of *Aloe vera*) was applied after application of red hot *Shalaka* to get relief from burning sensation. Appropriate precautions were taken to avoid production of *Asamyak Dagdha* (neither superficial nor deep burn).

#### **Paschat Karma**

After completion of procedure, the wound was covered with *Jatyadi Ghrita*, the entire procedure was repeated 2 times for desirable result. Daily dressing with *Jatyadi Ghrita* is done for perfect *Ropana*.

**Duration:** Medication 5days and dressing for 15 days.

**Follow up:** follow up for 60 days.

#### **Observations and Results:**

The present study revealed that the incidence of *Kadara/corn* was more in age group of 41-50yrs. i.e.30%. Maximum patients were males i.e. 63.33%. 90% of the patients were Hindus. Maximum numbers of patients were farmers i.e. 33.33%. Socio economic status revealed

that the maximum number of patients belongs to middle class i.e. 86.67%. The prevalence was more among those who belongs to rural area i.e. 53.33%. Maximum numbers of patients were having *Mandagni* i.e.46.6%. In the present study, all the patients were belonging to *Dwandaja prakruti* with dominance of *Vatta-kapha prakruti* i.e. 46.67% followed by *Vatta- pitta Prakruti* i.e. 33.33%. 63.33% of patients were reported with *Madhyam kostha* followed by *Kroora kostha* i.e. 30%. Maximum numbers of patients in this study were taking *Madhura rasa* i.e.43.33%. Maximum numbers of patients were having *Madhyma sara* i.e. 80%, *Madhyma satwa* i.e. 83.33%, *Madhyma satmya* i.e.90%. Out of 30 patients studied 66.67% patients were having chronicity of 6 months to 1 year while 33.33% of patients were having chronicity less than 6 months. The result of study showed highly significant effect. In all the 30 patients it was found that the improvement of mean score of pain relief at the end of 15 days showed 100% relief. The mean healing period after *Agnikarma* of *Kadara* in 30 patients was 10.87 days. In all 30 patients reoccurrence was nil and no bleeding was observed after the treatment.

**Table 2: Showing effect of therapy on pain and Sankramana at the end of 15 days**

	No. of Patients	Mean		% relief	S.D	S.E	t	p	Remarks
		B.T	A.T						
<b>Pain</b>	n=30	2.63	00	100	0.85	0.15524	16.963	<0.001	N.S
<b>Sankaramana (infection)</b>		D.T	A.T						
		0.066	00	93.34	0.253	0.46	1.439	>0.10	N.S

**Table 3: Showing Ropana kala (Healing Time)**

No. of Patients	Healing Time (in Days)
1	8
2	10
3	10
4	14
5	10
6	6
7	10
8	10
9	12
10	12
11	10
12	10
13	8
14	10
15	12
16	14
17	10
18	8
19	14

20	12
21	10
22	10
23	12
24	12
25	12
26	12
27	10
28	12
29	14
30	12
TOTAL	326
Average	10.87

Average Healing Time in 30 patients was 10.87 days.

## DISCUSSION

The age wise distribution showed that more patients were in age group of 41-50 yrs. It can be said that in this period people are doing more physical work so there are more chances of injury to foot by thorn or stone. Hence incidence is more common in this age group. Incidence of *Kadara* has no sex predisposition. The prevalence was more seen in Hindus. This might be due to geographical distribution of communities around the OPD and IPD of JIAR. The people of all religion are susceptible to this disease. More incidences among farmers might be due to their working in fields barefooted. Patients of rural area had shown more incidences in the present study might be due their way of working. The study showed that *Vatta-kapha prakruti* persons were more prone to this disease. The incidence was observed more in patients who were taking *Madhura rasa*. However, from the present study role of *Aahar-rasa* in the manifestation of *Kadara* could not be established. It was observed that maximum patients were suffering from the disease since 6 months to 1 year. This showed that the patients neglect the disease and comes for the treatment very late. The findings related to *Sara*, *Satwa* and *Satmya* were inconclusive in the present study.

## Probable mode of Action of *Pancha loha Shalaka*

*Agni* being *Ushna* act against the qualities of *Vaata* and *Kapha doshas* hence cures all *Vataj* and *Kaphaj* disorders, keeping this property of *Agni* in mind *Agnikarma* has been designed by our *Aacharyas*. When we see the *Nidana* of *Kadara*, *Vatta* and *Kapha* are the chief *Doshas* responsible for its manifestation. Thus, potentially, the use of *Agnikarma* can be rationalized in the treatment of *Kadara* without *Paka* and its nonoccurrence in future. *Agnikarma* increases local *Dhatwagni* and thus helps curing disease as well as reducing the chance of recurrence. By *Agni tapta shalaka* when *Agnikarma* is performed there will be no fear of *Paka*. *Agnikarma* can be utilized as a preventive measure, as a curative and post-operative procedure and as a haemostatic measure.

## Probable action of *Triphala Guggulu*

*Triphala* by its *Kashaya rasa* acts as *Vrana Ropana*, by *Tikta rasa* acts as *Krimighna*, by *Madhura rasa* acts as *Rasayana* and helps in tissue repair, by *amlarasa* which is rich in Vitamin C improves blood circulation. *Haritaki* having *Tridoshaghna* property helps in *Tridosha Shamana* & *Pippali* by its *Katu rasa* & *Tikshana guna* acts as *Deepana* & *Pachana*. *Guggulu* is a major component of this *yoga* it acts as *Vedana shamaka*.

## Probable action of *Jatyadi Ghrita*

*Jatyadi Ghrita* is hailed as one of the best *Shodhana* and *Ropana dravya*. It is indicated in various types of *Vranas* as external application i.e. *Marmritavrana* (Ulcers in vital points), *Kledi Vrana* (Oozing/weeping ulcer), *Gambhira Vrana* (Deep ulcer), *Saruja Vrana* (Painful ulcer). *Jatayadi ghrita* is having majority of *Tikta rasa* (40%), *Kasaya* (25%), *Madhur* (20%) and *Katu* (15%) and the presence of *Tuttha* in the *Ghrita* imbibes the *Vishada guna*. *Tuttha* is also known for its *Vrana ropana* property, presence of which makes the *Jatyadi ghrita* extremely good wound healing agent. *Haridra*, *Daruharidra*, *Katuki*, and *Sariva* present in the *Jatayadi ghrita* are known antiseptic, anti-inflammatory and anti carcinogenic agents. *Nimba* and *Patola* with its *Laghu* and *Ruksha guna* are proven *Krimighna* and *Shothaghna drugs*. With these properties, *Jaatyadi ghrita* is used as *Shodhana* and *Ropana dravya* in *Agnidagdha* caused due to administration of *Agnikarma* with *Pancha loha shalaka*.

## CONCLUSION

In this present study 30 patients were treated with *Agnikarma*, *Triphala guggulu*, *Jatyadi ghrita*, got 100% relief in the 15 days of duration. After thorough discussion on various observations in the present single clinical study following conclusions were drawn;

1. *Agnikarma* is a simple procedure and results oriented with nil reoccurrence.
2. Instead of surgical excision, *Agnikarma* therapy is more satisfactory in the management of corn.
3. It has no side effects, complication and recurrence.

4. It enables the patient to do his or her daily routine activities within few minutes of *Agnikarma* procedure.
5. Therapy is cost effective as compared to surgical excision with respect to number of post excision dressing, Antibiotic, Analgesic and Anti-Inflammatory and wound healing promoting drugs.

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